

ABSTRACT OF THE DISCLOSURE

5 A system and method for performing a magnetic imaging,
optical profiling, and measuring lubricant thickness and
degradation, carbon wear, carbon thickness, and surface roughness
of thin film magnetic disks at angles that are not substantially
Brewster's angle of the thin film (carbon) protective overcoat.
A focused optical light whose polarization can be switched
between P or S polarization is incident at an angle to the
10 surface of the thin film magnetic disk. This present invention
allows the easy measurement of the change in lubricant thickness
due to the interaction of the thin film head, the absolute
lubricant thickness and degradation of the lubricant. It also
allows the measurement of changes in carbon thickness and the
15 absolute carbon thickness. The surface roughness can also be
measured at any of the angles specified above. The rotation of
the reflected polarized light can be measured to identify the
Kerr-effect, and accordingly, the magnetic property of the point
at which the light reflects from the disk. In addition, the
20 present invention can mark the position of an identified defect
(for example) by automatically positioning a scribe in close
proximity to the target position, e.g., the position of the
defect, and marking the disk with the scribe.